

4 fuel gas;

5 providing said breathable composition to an animal on land while the animal is surrounded
B2 6 by a gaseous environment; and

OK within said animal, oxidizing said reactive oxygen species with said fuel gas.

B3 1 13.(Amended) The method of claim 8, said fuel gas being selected from hydrogen, methane,
2 ethane, and propane.

B4 1 15.(Amended) The method of claim 8, said breathable composition being an explosive
2 composition.

1 21.(Amended) The method of claim 8, further comprising the steps of:
2 filling a first chamber having an open bottom with the breathable composition, said first
3 chamber being positioned in a second chamber, said breathable composition being lighter than an
B5 4 ambient air so that said breathable composition is held in said first chamber; and
5 positioning the animal in the first chamber with the open bottom so that the animal breathes
6 the breathable composition.

1 22.(Amended) The method of claim 21, further comprising:
2 explosion-proofing the environment in the first and second chambers.

1 24.(Amended) The method of claim 21, further comprising:
B6 scrubbing an exhaled gas of the first chamber to remove carbon dioxide.

1 25.(Amended) The method of claim 21, said breathable composition comprising at least 66%
2 hydrogen by volume.

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1 26.(Amended) The method of claim 21, said breathable composition comprising hydrogen
2 and acetylene.

1 27.(Amended) The method of claim 21, the breathable composition in the first chamber
2 having a density less than about 75% of the ambient air.

1 28.(Amended) The method of claim 8, the step of providing further comprising the steps of:
2 positioning the animal in a building with a ventilation system; and
3 supplying said fuel gas into the ventilation system to provide the breathable composition
4 inside the building.

1 29.(Amended) The method of claim 8, the step of providing said breathable composition
2 simultaneously with the step of preparing said breathable composition by supplying said fuel gas to
3 a respiratory tract of the animal so that, upon inhalation of the fuel gas and ambient air, said
4 breathable composition is provided to the animal.

1 31.(Amended) The method of claim 8, further comprised of supplying the breathable
B5²⁷ composition to the animal via an oral-nasal mask or a helmet.

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32.(Amended) The method of claim 29, further comprised of maintaining a selected concentration of the fuel gas in the breathable composition by regulating a rate of supply of said fuel gas to the respiratory tract.

1 33. (Amended) A method of protecting a person from reactive oxygen species, the method
2 comprising the steps of:

3 preparing a fuel gas;

4 providing an animal on land while the animal is surrounded by a gaseous environment with
5 a nasal delivery system; and

6 supplying said fuel gas to the animal through said nasal delivery system, so that, upon
7 inhalation of said fuel gas and ambient air, said fuel gas is provided to the animal with said ambient
8 air, said nasal delivery system further comprising a supply of a fuel gas, a supply line connected to
9 said supply of the fuel gas, a flow restrictor mounted in said supply line, said flow restrictor
10 restricting a flow of the fuel gas, and a valve mounted in said supply line, said valve shutting off the
11 flow of the fuel gas.

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1 35. (Amended) The method of claim 33, with said nasal delivery system being a face mask.

36. (Amended) The method of claim 33, with said fuel gas being hydrogen.

1 37. (Amended) The method of claim 33, with said fuel gas being acetylene.

1 38. (Amended) The method of claim 28, said building comprising:

2 a ducting in the building for providing air to an inside of the building;
3 an explosion-proof blower connected to the ducting and having a return inlet from the inside
C 4 of the building;
5 a constant pressure source of said fuel gas;
6 a flow restrictor for restricting the flow of said fuel gas; and
7 a flow diffuser installed in the ducting downstream of the explosion-proof blower.

1 39.(Amended) The method of claim 38, further comprised of opening a valve installed
2 between said pressure source and said flow diffuser when said explosion-proof blower is operating.

BS 1 40.(Amended) The method of claim 38, said further comprised of:
2 installing a flow sensor in said ducting; and
3 opening a valve installed between said pressure source and said flow diffuser when said flow
4 sensor detects air flow in the ducting.

1 41. (Amended) The method of claim 38, said further comprised of:
2 positioning a fuel-gas sensor inside the building; and
3 opening a valve installed between said pressure source and said flow diffuser when said fuel-
4 gas sensor detects a particular level of said fuel gas inside the building.

1 42.(Amended) The method of claim 38, further comprised of said flow restrictor allowing
2 a flow rate of said fuel gas achieving a level of said fuel gas inside the house which is approximately
3 75% of an explosive limit.

1 43.(Amended) The method of claim 22, further comprised of said breathable composition
2 being an explosive composition.

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1 44.(Amended) The method of claim 43, with said breathable composition consisting
2 essentially of hydrogen, acetylene and oxygen.

1 45.(Amended) The method of claim 43, with said breathable composition consisting
2 essentially of hydrogen and oxygen.

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1 46.(Amended) The method of claim 43, with said breathable composition having a density
2 less than 75% that of air.

1 47.(Amended) The method of claim 43, with said first chamber further comprising a flexible
2 skirt suspended from a lip defined by the open bottom of the first chamber.

1 48.(Amended) The method of claim 43, wherein said first chamber is further comprised of
2 an overflow pipe extending from an entry opening above the open bottom of the first chamber
3 through the top of the first chamber, and said second chamber is further comprised of a check valve
4 at the top of the overflow pipe, said check valve is located in a region providing ventilation.

1 49.(Amended) The method of claim 48, further comprising:
2 positioning an inlet muffler inside the first chamber below the approximate height of a mouth

3 of the animal in the first chamber;

4 purifying the breathable composition drawn by the inlet muffler by locating a life support
5 system outside the first chamber and connecting the life support system to said inlet muffler; and
6 purifying breathable composition to supplied to the first chamber by installing a muffler
7 diffuser pipe inside the first chamber and connecting the pipe to the life support system.

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1 50.(Amended) The method of claim 49, said life support system further comprising:

2 a CO₂ scrubber;

3 a temperature and humidity control;

4 an oxygen supply supplementing oxygen;

5 a secondary loop scrubbing nitrogen, argon, oils and other contaminants; and

6 an alarm system alerting when there is a failure in the system.

1 53.(Amended) The method of claim 43, further comprising:

2 an antistatic mat on a floor under the first chamber.

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3 54.(Amended) The method of claim 30, said delivering means comprising:

4 an electrolytic cell for electrolyzing water to hydrogen and oxygen, said breathable
5 composition consisting essentially of said hydrogen and said oxygen produced by said electrolytic
6 cell;

7 a supply buffer tank connected to the electrolytic cell for containing said breathable
composition produced by the electrolytic cell;

a dome-loaded regulator connected to the supply buffer tank for supplying the;

8 a hose connected to the dome-loaded regulator; and
9 a helmet connected to the hose for supplying the breathable composition to a head of the
10 animal.

Q 1 55.(Amended) The method of claim 54, said delivering means further comprising:
2 a return hose connected to the helmet, for allowing said breathable composition to leave the
3 helmet;
4 a dome-loaded back-pressure regulator connected to the return hose, said dome-loaded back-
5 pressure regulator controlling the pressure in the helmet to a negative pressure;
B9 6 a return buffer tank connected to said dome-loaded back pressure regulator for smoothing
7 a flow of said breathable composition through the helmet; and
8 an explosion-proof suction compressor for providing negative pressure to the helmet.

1 56.(Amended) The method of claim 55, said delivering means further comprising:
2 a first sensing line extending from said helmet to said dome-loaded regulator; and
3 a second sensing line extending from said helmet to said dome-loaded back-pressure
4 regulator.

1 57.(Amended) The method of claim 56, said delivering means further comprising:
2 said suction compressor being designed to produce a negative pressure of approximately 3
3 PSI.

B10 61.(Amended) The method of claim 8, further comprising the step of providing the breathable

2 composition under a hyperbaric condition.

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--62. The method of claim 8, with said fuel gas being acetylene.

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2 --63. The method of claim 8, preparing said breathable composition by delivering ambient
2 air together with said fuel gas.

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2 --64. A method of providing protection from reactive oxygen species, the method comprising
2 the steps of:
3 electrolyzing water to hydrogen and oxygen by an electrolytic cell; and
4 supplying said oxygen and said hydrogen in a helmet; and
5 positioning a head of the animal in said helmet.

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2 --65. A method of providing protection from reactive oxygen species, the method comprising
2 the steps of:
3 preparing a breathable composition comprising oxygen intentionally supplemented with
4 acetylene;
5 providing an animal on land while surrounded by a gaseous environment with said breathable
6 composition; and
7 within said animal, oxidizing said reactive oxygen species with said acetylene.

1 --66. The method of claim 65, with said oxygen being supplied from an ambient air.

1 --67. The method of claim 65, with said breathable composition further intentionally
2 supplemented with a fuel gas.

1 --68. The method of claim 67, said fuel gas being selected from hydrogen, methane, ethane,
2 and propane.

1 --69. A method of providing protection from reactive oxygen species, the method comprising
2 the steps of:

3 providing a breathable composition comprising a first fuel gas and an oxygen, said breathable
4 composition being lighter than an ambient air;

5 filling a first chamber having an open bottom with the breathable composition, said first
6 chamber being positioned in a second chamber; and

7 positioning an animal in the first chamber with the open bottom so that the animal breathes
8 the breathable composition.

9 purifying the breathable composition by a life support system, said life support system
10 comprising a CO₂ scrubber, a temperature and humidity controller, an oxygen supply supplementing
11 oxygen, a secondary loop for scrubbing nitrogen, argon, oils and other contaminants, and an alarm
12 system for alerting when there is a failure in the system.

1 --70. The method of claim 61, further comprising the step of providing the breathable
2 composition under a hypobaric condition.

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